

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

These amendments introduce no new matter and support for the amendment is replete throughout the specification and claims as originally filed. These amendments are made without prejudice and are not to be construed as abandonment of the previously claimed subject matter, or agreement with any objection or rejection of record.

Listing of Claims:

1. (Currently Amended) A method of generating a plant comprising transformed plant cells, the method comprising:

culturing at least one non-apical meristemic cell to produce at least one shoot;

culturing at least one leaf base explant ~~or core section explant~~ from the shoot to produce one or more organogenic cells;

introducing at least one nucleic acid segment into the organogenic cells to produce one or more transformed organogenic cells, wherein the nucleic acid segment is introduced into the organogenic cells using Agrobacterium-mediated delivery;
and

generating at least one plant from the transformed organogenic cells without going through a callus intermediate.

2-4. (Cancelled)

5. (Previously Presented) The method of claim 1, wherein the non-apical meristemic cell comprises a pineapple cell.

6-9. (Cancelled)

10. (Previously Presented) The method of claim 1,

wherein the nucleic acid segment comprises at least one sense nucleic acid segment that corresponds to at least a portion of at least one endogenous gene;

wherein the nucleic acid segment comprises at least one sense nucleic acid segment that corresponds to at least a portion of at least one exogenous gene;

wherein the nucleic acid segment comprises at least one antisense nucleic acid segment that corresponds to at least a portion of at least one endogenous gene;
wherein the nucleic acid segment encodes at least one polypeptide transcription factor;
or,
wherein the nucleic acid segment encodes at least one promoter and/or at least one enhancer, which nucleic acid segment homologously recombines with at least one promoter and/or at least one enhancer of at least one endogenous gene.

11-17. (Cancelled)

18. (Original) The method of claim 1, wherein the nucleic acid segment encodes a polypeptide.

19-20. (Cancelled)

21. (Original) The method of claim 18, wherein the polypeptide is heterologous to the organogenic cells.

22. (Original) The method of claim 18, wherein the polypeptide is homologous to at least one endogenous polypeptide of the organogenic cells.

23. (Previously Presented) The method of claim 18, wherein the polypeptide comprises at least one carotenoid biosynthetic polypeptide that is selected from the group consisting of: an isomerase, an isopentenyl diphosphate isomerase, a geranylgeranyl pyrophosphate synthase, a phytoene synthase, a phytoene desaturase, a ζ -carotene desaturase, a lycopene β -cyclase, a lycopene ϵ -cyclase, a β -carotene hydroxylase, and an ϵ -hydroxylase.

24-54. (Cancelled)